a1 amend.

wherein a ferromagnetic substance included in the shaft is locally magnetized in a direction parallel to the shaft so as to create magnetic flux density gradient that is set at a maximum on the bearing surface of the porous sleeve and decreases gradually as it stays away therefrom.

a2

3. (Amended) The magnetic fluid bearing motor as claimed in claim 2, wherein the bearing portion has a groove for generating dynamic pressure formed on a surface of the shaft or the sleeve and the magnetization-varying portion is arranged in a position of the shaft that corresponds to the groove.

a3

6. (Amended) A magnetic fluid bearing motor provided with a bearing assembly, the bearing assembly comprising:

a substantially solid porous sleeve including a ferromagnetic material;

a shaft faced to the sleeve with a bearing portion with a minimum gap provided therebetween; and

magnetic fluid oil impregnated into the gap and the porous sleeve;

wherein a surface of the bearing portion of the sleeve is locally magnetized in a direction parallel to the shaft so as to create magnetic flux density gradient that is set at a maximum on the bearing surface of the porous sleeve and decreases gradually as it stays away therefrom.